ELECTROPATHY:

A

NEW METHOD OF TREATING DISEASE

BY

ELECTRICITY.

aH QaH Electric Association, Limited.

HOLBORN VIADUCT, LONDON.

M17173

22101787544

36.B.7345

BURROUGHS WELLCOME & Co.
LIBRARY
No. 177. 19.3.

Digitized by the Internet Archive
in 2014

https://archive.org/details/b20403707

ELECTROPATHY:

A

New Method of Treating Disease

BY

ELECTRICITY.

PUBLISHED BY THE

Pall Mall Electric Association, Limited,

PARIS: 32BIS BOULEVARD HAUSSMANN.

NEW YORK: 17, EAST 14TH STREET.

CHIEF OFFICE:

21, HOLBORN VIADUCT, LONDON.

1883.

Entered at Stationers' Hall. *All rights reserved.*

M17173

WELLC[illegible]TITUTE
[illegible]

Coll.	[illegible]mec
[illegible]	
[illegible]	WB495
	1883
	P16e

PREFACE.

The increasing demand for Electropathic Appliances, the numerous inquiries received as to their construction and the manner in which they act in disease has induced the Directors of the Pall Mall Electric Association to issue this little pamphlet, in which will be found a very brief description of the various curative articles they recommend together with an enumeration of the diseases in which their use is indicated. Particular care has been taken to put everything in the simplest language, and all technical terms, either Scientific or Medical, have been as far as possible studiously avoided. The great number of letters received testifying to the efficacy of Electricity in alleviating pain and remedying morbid conditions can leave no room for doubt, even in the minds of the most sceptical, as to the value of the system of treatment advocated by the Association.

C. B. HARNESS,

Managing Director.

CONTENTS.

	PAGE.
Introduction	7
Statical Electricity	16
Galvanism	17
Faradization	21
Magnetization	24
Diseases of the Organs of Digestion ...	26
Diseases of the Lungs	30
Diseases of the Heart	31
Rheumatism and Gout	33
Diseases of the Nervous System	37
Miscellaneous	47

Those who read this little work should send to the Head Office of the PALL MALL ELECTRIC ASSOCIATION, LTD., 21, HOLBORN VIADUCT, *for Illustrated Descriptive Price List and Copies of Testimonials, free on application.*

ELECTROPATHY.

CHAPTER I.

THERE are no fallacies or impostures so dangerous as those which are partial statements of truth, and although it is correct to say, with Dr. Priestly, that "there is no error that has not a particle of truth within it," it is still more true to say that no errors are so dangerous as those which have an appearance of truth to recommend them. It is, moreover, not always easy to separate the falsehood from the truth, and expose the fallacy to the ordinary mind which has not been educated in intellectual analysis. For example, although it is perfectly true that animal heat depends chiefly on the proper fulfilment of the function of respiration, it would not be true to say that animal heat depends on the respiration, because it can be shown that the

heat of the body will decline if the nervous functions be interfered with or destroyed, even though the act of respiration be continued. Now, in like manner, it is true that no healthy function of the human body is performed without a development of the electric force, or a current of electricity. But it is an ignorant assumption to mistake this fact, or misstate it, by saying "Electricity is life," because no dead person was ever made to live by electricity. A plant or a person may be restored to health and vigour by the use of the electric or galvanic current; but this only proves that whilst electricity is associated with all vital processes—and scarcely any such processes can be healthily performed without it—that the galvanic or electric current ministers as a servant to life, but is not to be confounded with life itself.

It is also a necessary inference from the foregoing position, that if from any cause there is not a sufficient natural supply of electricity supplied to the nerves which govern or direct some particular function of the body, such a supply from an artificial source will restore the function, or maintain it in its healthy condition. This is the true principle upon which ELECTROPATHY, or the cure of disease by electricity, rests. The basis is Nature, and the application, if properly directed, may be said to be

invariable in its effects, because it is an application of a scientific principle in accordance with natural law.

Whilst doubts may arise as to the efficiency of the treatment of disease by medicines administered through the stomach and the blood, no such doubt applies to the curative effects of electricity, a current of which can be sent to or through any particular part, or along the nerves, supplying any part of the body.

And the result of the application is one which admits of no mistake. For example, the application of a current of electricity to the nerves supplying any organ of excretion will at once increase that excretion ; or, if the secretion be not natural, owing to a deficiency of natural electricity, the current, properly applied, will rectify the secretion and restore health. But this is done by supplying a clearly indicated want or deficiency. The kidneys are especially amenable to such treatment, because they are under special influence from the nervous centres, as is readily proved by the immediate increase of the urinary secretion by any mental excitement. Now, the very activity produced by mental emotion can be produced also by the galvanic current acting on the nerves supplying the kidneys ; and here it may be remarked, that in the

human body one function is so completely dependent on another, that if one function be deranged the others suffer. Thus, nothing would appear to be more distinct than the functions of digestion and that of fancy; yet dreaming, which is the exercise of wild fancies, is produced by taking indigestible food for supper. The overloading of the stomach produces all the symtoms of brain disturbance, and shows how the healthy performance of one function affects some other organ. This is important, especially in regard to the kidneys, the derangement of the functions in which always produce great constitutional disturbance, and seem to be very closely connected with the functions of the brain. The duty of the kidneys being to eliminate certain substances from the blood, it follows that if those substances be not eliminated, all the organs of the body will suffer from the continued presence of that which ought to have been eliminated. Such materials remaining in the blood act, practically, as poisons, and hence it may be said that a person who dies from disease of the kidneys has been poisoned. Scientific research has gone far to show that a very slight disturbance of the functions of the kidneys is associated with, if not the direct cause of, those painful and obscure diseases—rheumatism and gout. Can anything be more reckless,

then, than to neglect so simple a remedy as a galvanic current passed to the kidneys, when such an application may prevent years of subsequent suffering and physical incapacity? If Nature does not require such aid, it will do no harm; if, however, she does require it, she will avail herself of the aid offered, and a beneficial result will be achieved.

From another point of view the value of the electric current may be considered. A great deal has been said and written to show that infectious diseases are communicated by minute spores of a fungoid nature floating in the air and breathed by the persons attacked. Professor Tyndall and other eminent scientists have published evidence to support this theory, which is now generally accepted—not only with regard to what are known as zymotic diseases, but even with regard to what have been always hitherto classified with constitutional diseases, such as phthisis or consumption. The theory may be stated thus: A person suffering from disease breathes forth at each expiration a certain number of spore-germs in the form of an invisible dust of disease seeds or spores; these spores float in the air, attach themselves to clothing, curtains, walls, floors, and all surroundings, where they may lie in a sort of undeveloped condition for a long time; but, if they come in contact with a

living organism in a proper state for their reception they immediately take upon themselves fresh vitality, and, increasing with enormous rapidity and with prodigious fertility, reproduce in the new organism the disease which originally gave them birth. It is not our purpose to go further into the question, beyond dealing with it in relation specially to the subject before us.

A moment's thought, however, will show that many hundreds of persons breathe these germs of disease, but that only a few of them are affected by the illness which they produce. How and why is this? Because no spore or germ will fertilise unless it fall upon a suitable surface—or, to use more scientific phraseology, unless it find a suitable nidus. The seed that falls upon stony ground produces no crop. Hence arises the important physiological problem expressed in the question—What is the suitable nidus for the disease-germ or infection-spore? It is fortunate that there is not much difficulty in finding evidence on this very important inquiry. Beginning with plants, we find that insect pests attack the very young and immature leaves of the plants on which they live, or upon plants which lack vigour and vitality from want of air, light, moisture, and other causes. We know that zymotic or infectious diseases are particularly fatal

to infants, and that such diseases are more liable to a fatal development amongst persons of low vitality. Thus it is a well-known fact that persons going into a fever-ward well-fed are not nearly so liable to catch the disease as a person who has not taken proper food, and whose vital force is "below the mark.' This is the fact to which we desire to call especial attention, viz., that where the vital forces are low the system forms a ready nidus for disease spores; or, in other words, that persons whose vital functions are not in healthy vigour are more liable than others to take infectious diseases. And it follows from this, that the best protection against infectious disease is to take care that the vital functions are in active operation. This is generally indicated by the maintenance of the animal heat, which is evidence of vigour; but the animal heat falls when the nervous force is cut off, and the vital functions are not actively performed. If digestion be suspended, the animal heat forthwith declines.

Now much has been written, and probably a great deal more will be said, as to the modes of dealing with zymotic spores or disease-germs; but we unhesitatingly claim that "prevention is better than cure"—that a zymotic disease can be "stamped out" by taking care that the germs have no nidus on which to fertilise, and that such a mode of deal-

ing with those germs is a far better one than the tedious and always uncertain plan of disinfectants, however carefully applied.

The principal object in thus dealing with disease-germs is, therefore, to maintain the vigour and vital forces of the system, whilst everything should be avoided which is calculated to lower the energies or reduce the constitutional vigour. Excesses of all kinds render persons who indulge in them less able to resist the attacks of disease, and individuals who have not exercised proper control over themselves, and have thus debilitated their constitutions, should promptly adopt measures to recruit the lacking energy, and more especially, to adopt such means as will restore the natural secretions. Now, we have already pointed out that whilst it is incorrect to say that "Electricity is life," it is, nevertheless, a truth, that no vital functions are conducted without it, but that, on the contrary, all vital functions are associated with it in the form of the continuous current The common idea of galvanism or electricity is, that it is something to make the muscles contract and jump. Now, we wish to point out that it is only the interrupted or induced current which does this, and that, in fact, the muscular contractions or spasms produced by the galvanic battery as usually applied are due not to the current, but to its sudden inter-

ruption. Just as "cramp" is a disease of weakness, and the stiffness of death is due to general muscular contraction, so it may be inferred that when particular muscles contract in obedience to an order sent from the brain along the nerves of the part, the contraction is due rather to the cessation of the galvanic or electric current than to its accession, and that the *rigor mortis*, or stiffness, of the corpse is due to muscular contractions, produced by the cessation of the galvanic or electric current. Hence it is of the utmost consequence to understand the difference in application of the continuous, as compared with that of the induced, current. This important difference may be understood from the fact that a current of electricity or galvanism which as an *interrupted* current would be unbearable, is not felt as a *continuous* one. A current which rapidly decomposes water may be passed through a human muscle without the knowledge of the person receiving the current, except that at the moment of making and breaking contact a sensation is produced. Consequently any appliances that produce the primary or constant current can be worn without unpleasant sensations being experienced.

BURROUGHS, WELLCOME & Co.
LIBRARY
No.

CHAPTER II.

ELECTRICITY presents itself under three forms, and each is used in the treatment of disease:—

I. Statical Electricity, or that produced by friction.

II. Galvanism, or the Constant Current, the electricity of chemical action.

III. Faradization, or the Induced Current The current produced in conducting bodies by the action under certain conditions of magnets, or a galvanic current.

STATICAL ELECTRICITY.

Statical Electricity is generated for medical purposes from an electric machine, which consists of a plate or cylinder of glass revolving against cushions or rubbers. There is no need, in a little book of this kind, to minutely describe the machine, especially as this method of electrical treatment has, to a very great extent, fallen into disuse. Suffice it to say that the patient, who is insulated by being placed on a glass chair and stool, can then be charged with either negative or positive electricity. Some authorities consider that form of electrization is of value where the vital powers are low and the system appears generally to require

rousing. After being charged with positive electricity, the circulation appears to be quickened, and the various secretions, more especially those of the skin, increased; the negative electric charge has been said to act by drawing from the body morbid or unhealthy accumulations. At one time this was the only method of using electricity as a remedial agent; but now galvinism and faradization, applied either by a battery or produced from wearing suitable electrical appliances, have entirely superseded it. This cannot be wondered at when it is remembered that all the apparatus for producing statical electricity is bulky, cumbersome, uncertain in its action, and that its production is dependent, to a very considerable extent, on atmospheric conditions. Its good effects can be obtained by other methods, and many diseases that readily yield to the action of the constant and induced currents are untouched by statical electricity.

GALVANISM.

Galvanism or the constant current, the electricity of chemical action. It is more than probable that whenever chemical action takes place electricity is evolved; and if we are unable to detect it, it is probably owing to the inaccuracy of our present knowledge of the subject, and faulty methods of ex-

perimenting. Experience teaches us that electricity is most conveniently produced by the reactions that occur when two metals are placed in acid solution under certain conditions, and, for reasons of economy, zinc is generally the metal at whose expense the electrical force is evolved. There is no intention here to enter into a description of the various kinds of batteries; it will be quite sufficient to mention one or two of the simplest construction A galvanic cell consists of two metals electrically opposed to one another, such as zinc and copper, placed in a solution of sulphuric acid and water, the metal plates not touching each other within the acid, but being joined together outside it, either by actual contact or a metallic wire; a primary current of electricity flows round the circuit formed in this manner. If a series of these galvanic cells are joined together, the copper of the one to the zinc of the next, and so on, the arrangement is called a galvanic battery. The zinc of the first cell and copper of the last, or the wires that lead from them, are called the poles of the battery, the zinc being the negative pole and the copper the positive pole. From what has been said it will be easily understood that a galvanic battery may be made up of any metals electrically opposed to one another immersed in a suitable medium. A very

active battery is the zinc-carbon. Plates of carbon and zinc placed in a solution of bichromate of potash, sulphuric acid, and water form the element. For popular use as a remedial agent, the galvanic current as obtained from batteries even of the simplest construction is unsuitable. A constant current battery for therapeutical purposes is cumbersome, generally consisting of about twenty cells joined up together; its application requires a thorough knowledge of the method of applying electricity in disease, and a close acquaintance with the construction of the battery used; the consequence has been that galvanism as a healing agent has been much neglected.

For years electricians have endeavoured to construct some apparatus that could, when worn, produce a current that was sufficiently constant to be serviceable in the treatment of disease, but all their efforts had failed; the articles offered to the public were valueless, either because they had no electrical action, or, if they had, it was feeble and inconstant—therefore worthless—and the apparatus was so complicated and bulky that it could not possibly be worn. It remained for the Pall Mall Electric Association, Limited, of 21, Holborn Viaduct, London, to solve the problem, which they have done most satisfactorily by producing their

now well-known and highly appreciated "Electropathic" appliances. These consist of waist-belts, spine-bands, anklets, wristlets, leg, arm, and thigh pieces. For the most part they are constructed on the principle of the galvanic battery known to the great German philosopher Humboldt. The electropathic belt and spine-band are particularly simply and ingeniously made. A series of zinc and copper discs, the latter silvered, are joined together by copper wire, and these are fastened into a well-fitting waist-belt, or plain straight band, as the case may be. When placed next the skin the action of the perspiration on these plates is sufficient to excite a mild, continuous current of electricity, that is a specific in some diseases, affords relief in many, improves the general health in all, and can never do any harm. The amount of current generated is in accordance with the number of plates fixed to the appliance, consequently the more pairs of galvanic discs there are upon a belt the more quickly it acts, and the greater its value as a remedial agent. It must be clearly understood that in using the belt just described, there is no trouble, it cannot get out of order, it has not to be dipped in acid or other fluid, it must be worn next the skin, and the perspiration acts as the exciting medium.

Another kind of Belt is manufactured by the Association, and this does not require to be worn continuously. In this case a series of constant current Batteries, made in a particular manner, protected by a Patent belonging to the Association, are inserted into a belt, the construction of which is also patented, the terminals of the batteries are fastened to the inside of the Belt, and come next the skin. A more powerful current is obtained from this appliance than from those in which the perspiration acts as the exciting medium.

Whichever belt is worn, a constant current of Electricity is produced that as a remedy has been for too long neglected : it relieves pain in a marvellous manner, increases the secretions of the liver, kidneys, stomach, and uterus ; it gives tone to the muscles and nerves, and at the same time it relaxes morbid contractions ; it increases the circulation, promotes absorption, improves nutrition, and is unrivalled as a general tonic ; by improving the, condition of the whole system, it acts as a preventive against disease. When speaking of the diseases in which the Electropathic Appliances are suitable, more specific mention will be made of their use and value.

FARADIZATION.

Faradization, or the application of induced cur-

rents. In this country, Professor Faraday was the first to discover that a current of Electricity could be generated in a coil of copper wire, by the action upon it, under particular conditions, of a permanent magnet or a galvanic current.

As a remedy, the induced current is always applied from a battery; no appliances have yet been made sufficiently light and comfortable to wear capable of producing the induced current, which differs in its character and uses from the constant current. When the latter is used, unless very powerful, no sensation is felt, but with the induced current there is always a pricking and tingling, and if the current is very strong the pain may be unbearable.

Faradic Batteries of various makers are offered to the public, but they are all open to the objections raised against Galvanic Batteries, viz., their liability to get out of order, and the necessity of their being refilled with some chemicals. The Pall Mall Electric Association supply a most ingenious Faradic Battery, which they call their Medical Coil. This greatly-improved Battery requires no attention, is constant, and always ready. The extreme compactness of its construction renders it handy and portable for medical men and others, the dimensions being, length 4½ inches, breadth 3, and

width 1 inch (about the size of a very small book). A full description of it will be found in the illustrated descriptive price list, that can be obtained on application.

Faradization may be employed to produce either a constitutional or a local effect. To produce the former, it must be applied by a skilled electrician; it then gives very good results, the sleeping powers, appetite, digestion, and circulation are improved, nervous depression is relieved, and the tone of the whole system is raised; there is a greater sense of capability for work, either mental or bodily. For its local effects Faradization may be used by anyone ordinarily intelligent; it is of value in case of paralysis, contracted muscles, or swollen joints due to rheumatism, localised muscular pains, chilblains, &c. The application of a Faradic current to the part affected, together with the constant wearing of Electropathic appliances, is invariably attended with excellent results.

One word of warning is called for as regards the use in disease of the Magneto-Electric Machine sold in most toy shops: they produce, when the handle of the machine is turned, a rough, unsteady current, that is worse than useless as a therapeutical agent. The general method is for the sufferer to take the brass terminals in his hand, while some

obliging friend works the machine, the only effect being to cramp and irritate the muscles of the forearm, at the same time to disgust and disappoint the patient and his friends with Electricity as a remedy which they imagine they have applied *secundum artem.*

MAGNETIZATION.

Magnetization, or the employment of magnets as a remedy, dates from the earliest ages. How or in what way magnets act is as yet unknown. Various theories, all of them erroneous, have been propounded by the vendors of magnetic appliances but none of them have been sanctioned and approved of by scientific authorities. Unlike the electric current, which produces marked physiological effects when applied to the various tissues of the body, repeated experiments with the most powerful magnets have produced a negative result; nevertheless, in the light of experience it cannot be doubted that in suitable cases properly constructed magnetic appliances do exert a beneficial effect. We do not know how they act, but we know they do good, and whatever relieves pain and suffering should not be neglected. In spasmodic, nervous affections, such as EPILEPSY, CHOREA, CATALEPSY, HYSTERIA, magnetic appliances are found to be

useful. In pulmonary diseases, for example, BRONCHITIS, ASTHMA, SPASMODIC COUGH, they are found to be of the greatest service, relieving oppression, diminishing expectoration, soothing cough and easing pain and uncomfortable sensations. The great Dr. Laennec thought very highly of the employment of magnets in all chest affections. Hahneman, the founder of Homœopathy, considered them a most valuable addition to his Materia Medica.

The Pall Mall Electric Association manufacture magnetic appliances that have been proved to be of the greatest value, notably the Electropathic Chest Appliance. Numbers testify to the efficacy of this apparatus, which is in the form of a chest and back protector, and powerful, though light, magnets are placed in it, so that their magnetic influence is exerted to the best advantage.

CHAPTER III.

Having briefly mentioned the different forms of Electricity, this chapter will enumerate some of the principal diseases in which Electrical treatment is useful.

DISEASES OF THE ORGANS OF DIGESTION.

THERE are no diseases more common than those of the digestive organs, none that cause greater misery, or for which a larger amount of physic is swallowed, often without benefit. Fortunately, electricity is particularly successful in such cases, especially when the applications are mild and of long continuance; galvanism, or the constant current, is generally indicated, and it affords the best results when applied by means of the Electropathic Appliances. The diseases of the digestive organs that yield to electrical treatment are Constipation, Dyspepsia or Indigestion, Jaundice (due to inefficient action of the liver), Chronic Diarrhœa, Flatulence, Vomiting of a nervous character.

Constipation.—Sufferers from this very troublesome affection, so common amongst those leading a sedentary life, should entirely discontinue the use of aperient medicines, be careful as to their diet—substituting brown or whole meal bread for white—take plenty of fruit and vegetables. If it is a case of no great severity, a No. 2 power Electropathic Belt, having galvanic discs both back and front, will, by promoting a free flow of the bile (the natural purgative), increasing the contractible power of the muscular coats of the intestines, and its tonic effects

on the system generally, effect a cure. Cases of long standing must wear the No. 3 power Electropathic Belt, or the use for an hour or two daily of the Battery Belt may be required. On these points the advice of the Electrician of the Association should be sought. Obstinate and exceptionally severe cases, that fail to find relief from wearing even a belt of good power, should try local faradization of the abdomen. They must obtain one of the medical coils giving a Faradic current (a sketch will be found at the end); small pieces of sponge saturated with warm salt and water should be inserted in the electrode, the negative pole must be placed on the spine about the middle, and the positive pole moved over the abdomen from side to side, with a current as strong as can be borne. The adoption of this treatment is sure to effect a cure, even in the most obstinate cases.

Dyspepsia, or Indigestion, arises from a variety of causes. So common is it, that a description is uncalled for. Very frequently it is a symptom, and an important one, of nervous derangement; but, whatever its cause, electricity is invaluable as a remedy. In slight cases, a No. 2 power Electropathic Belt should be worn; cases of greater severity and long standing will require a No. 3 Belt, together with a Spine Band of corresponding

strength. The Belt acts beneficially in three ways —as an abdominal compress, by improving the nutrition of the digestive organs, and by acting as a tonic to the nervous system generally. If after powerful Electropathic Appliances have been worn a cure has not been effected, the advice of the Electrician of the Association should be sought, as occasionally very severe cases require the application by a skilled operator of the galvanic or Faradic current obtained from a battery. Dyspeptics must, of course, aid the action of the Belt by taking reasonable care of themselves, and avoiding food well known to be indigestible.

Chronic Diarrhœa is frequently due to a morbid condition of the stomach; hence a want of power to assimilate the food, which passes undigested into the intestines, setting up an unhealthy irritation. The Electropathic Belt will relieve the symptoms soothing pain, improving nutrition, and exciting a tonic action.

Vomiting, especially when due to some nervous derangement, can be successfully treated, either by wearing an Electropathic Belt or a Spine Band and Galvanic Pad over the stomach. The distressing vomiting of pregnancy can be relieved by Electropathic Appliances properly selected.

Flatulence is usually associated with Dyspepsia,

and will require the use of appliances suggested for that condition.

Sluggish Liver.—Those who over-indulge their appetite, who lead a sedentary life, or who have resided for long in tropical climates, almost invariably suffer from an inefficient performance of the functions of the liver. The symptoms are many and varied, but the electropathic mode of treatment is specially successful. The Association have received numerous letters from those suffering in this way, especially Indian officers, testifying to the benefit derived from wearing suitable appliances. In the majority of cases a No. 3 power Belt and Spine Band is required, but occasionally the use of the Battery Belt is advised. The appliances relieve not only by their tonic effect on the system generally, but by their direct action on the digestive organs, giving tone to the stomach, liver, and intestines, increasing their secretory powers, promoting a flow of bile, and removing constipation, if it exists, or by strengthening the digestive powers and improving nutrition, preventing diarrhœa.

SECTION II.

DISEASES OF THE LUNGS.

CHRONIC BRONCHITIS, INCIPIENT CONSUMPTION, ASTHMA, WINTER COUGH, EXTREME SUSCEPTIBILITY TO CATCHING COLD—all these affections can be generally cured, and in all cases relieved, by wearing the "Electropathic Chest Appliance." The powerful magnetic action it exerts relieves the cough, soothes pain, and improves the general condition. In cases where the general health is much below par, the action of the Chest Appliance should be aided by wearing an Electropathic Belt.

Chronic Bronchitis.—If of long standing, with profuse expectoration and considerable difficulty of breathing, a Chest Appliance of No. 2 or 3 power must be worn. If the general health is much impaired, an Electropathic Belt will be required as well. The Chest Appliance would tend to soothe the cough, and exert a beneficial action locally, whilst the Belt, by its tonic action, improves the general health.

Incipient Consumption.—Those who have a hereditary tendency to this terrible disease should always wear especially in this trying and changeable climate, an Electropathic Chest Appliance. Its

preventive action is invaluable. Even in cases that present many of the gravest symptoms of Phthisis, the Electropathic Appliances have been found to be of the greatest service. In such a serious disease it is as well to ask the advice of the Electrician of the Association, either personally, or by letter. Powerful appliances will generally be required.

Asthma is essentially a nervous disease, and though not perhaps in itself dangerous to life, it is the cause of great suffering. Perhaps more remedies have been suggested and tried for its relief than for any other affliction. The Pall Mall Electric Association have received very striking testimony to the efficacy of the Electropathic Chest Appliance. No. 3 power, capable of exerting very considerable magnetic influence, is the appliance that has been most useful ; it has not only relieved the painful breathing, but has cut short the attack, and rendered the fits less frequent.

Winter Cough.—Many persons as soon as ever the winter sets in find themselves attacked by a troublesome cough, that does not leave them again until the return of spring. No medicine seems to have any effect; the Electropathic Chest Appliance will be found a sure cure.

Extreme Sensibility to Chills.—This may very well be classed as a separate disease. Some people seem unable to bear the least breath of air; any sudden change of temperature affects them seriously, and they are liable to repeated attacks of "colds on the chest," bronchitis, &c.; their general health is much below par, their nervous system wants bracing, and all the functions of the body strengthening and stimulating; their circulation is feeble, and they generally complain of cold hands and feet. An Electropathic Belt and Lung Invigorator of No. 2 power is required in such cases. The Chest Appliance acts as a preventive, whilst the tonic effects of the Belt soon make themselves shown in the improved condition of the wearer.

SECTION III.

DISEASE OF THE HEART.

Electropathic treatment would not have any curative effect in actual organic heart disease; the only way in which the wearing of any appliances would be useful would be by their general tonic effect. Functional heart affections can, however, be remedied.

Palpitation of the Heart.—This is frequently associated with hysteria, derangement of the digestive organs, and anœmia. It rapidly yields to Electropathic treatment. A medium power No. 2 Electropathic Belt should be worn, and some cases will require the aid of a Spine Band ; these act by strengthening the nervous system, and controlling and regulating the heart's action.

Angina Pectoris.—This excessively painful, but, fortunately, rare disease has occasionally been treated electrically. The wearing of a Spine Belt and the application of the Faradic current to chest would hold out reasonable hopes of success. Before selecting any appliances sufferers should consult the Electricians of the Association.

SECTION IV.

RHEUMATISM AND GOUT.

Rheumatism presents itself under different forms. It may be divided into ACUTE, SUB-ACUTE, CHRONIC, and MUSCULAR.

Acute Rheumatism, or *Rheumatic Fever*, cannot be treated by Electropathic Appliances, but the other varieties invariably find relief.

Sub-Acute Rheumatism.—A Belt of good power, either No. 2 or 3, must be worn, and swollen joints, as the knees, ankles, or wrists, covered with suitable appliances.

Chronic Rheumatism.—An Electropathic Belt and Spine Band will be required, and these must be powerful. When there is any contraction of the muscles from disease of long continuance, direct applications either of the galvanic or Faradic current are indicated.

Muscular Rheumatism is the name given to pains localised in any particular muscle or group of muscles, arising, as is generally supposed, from exposure to cold or damp. When the muscles of the lower part of the back are attacked the affection is called Lumbago. To Rheumatism of the muscles of the chest the name Pleurodynia is given.

Lumbago is a very common and painful affection. While those suffering from it do not feel generally ill, or are of necessity confined to bed, the muscular pain causes great inconvenience. If the attack is at all severe, the patient is unable to stand upright, walking is difficult, and sitting down or rising up causes agony. Various remedies are used, such as medicines taken internally, the external application of liniments, the wearing of a thick flannel band, and so on; but the result of the

ordinary treatment is generally very unsatisfactory. The Electropathic Belt is perhaps more successful in rapidly curing Lumbago than any other morbid condition. The Association have received an extraordinary number of good reports concerning the efficacy of their Belt. Its use not only almost at once relieves the pain, but prevents the recurrence of the attack. A broad Belt of good power, covering the lumbar region, should be worn continuously, and severe cases will often find it wise to use the Battery Belt for an hour or two morning and evening in addition.

Pleurodynia.—If the pain is severe, the sufferers are apt to imagine that they have pleurisy (inflammation of the membrane covering the lungs), but this is not the case; the pain is increased when a long breath is taken, on account of the greater action of the respiratory muscles. The Electropathic Chest Appliance will ease the pain, or a Galvanic Pad may be worn. Some cases are cured after all other methods of treatment have failed by the properly directed application of the galvanic or Faradic current, whichever is indicated, from a battery.

The Electropathic Appliances act beneficially on rheumatism by the specific power that the constant current possesses in a remarkable degree of easing

pain by increasing the natural secretions, and by their tonic effect on the system at large; by improving the general health they render sufferers less liable to fresh attacks, and so act as a preventive.

GOUT.

The pain of acute gout may be relieved for the time being by the local application of the Faradic current. In the chronic state of the disease an Electropathic Belt and Spine Band should be worn for their constitutional effect. Advice should always be sought as to what appliances are required. Each individual case should be treated on its merits.

RHEUMATIC GOUT.

This is a disease in which it is extremely difficult to afford permanent relief by any method of treatment. Sufferers from it are nearly always in a debilitated condition, and tonic remedies are invariably indicated. Electropathic Appliances are well worthy of a trial; they would relieve the pain, and, by improving the general health, better enable the system to resist the attacks.

SECTION V.

DISEASES OF THE NERVOUS SYSTEM.

Though not a strictly accurate grouping, we will include under above heading the following diseases that can be benefited by Electropathic treatment:—Paralysis, Locomotor Ataxia, Chorea or St. Vitus's Dance, Epilepsy, Hysteria, Neuralgia, Cephalagia or Headache, Vertigo or Giddiness, Nervous Exhaustion.

Paralysis.—Even those who know nothing of Electricity, and less of medicine, have still some vague, half-formed idea, that if there is any disease in which Electricity as a remedy is worth trying, it is the morbid condition associated with loss of motion. Paralysis is a comprehensive term, and the symptoms it indicates may be due to widely differing causes. There may be Paralysis in which both motion and sensation are affected, either wholly or in part, or one or the other only may be wanting; there may be General Paralysis, that of the whole body, or Partial Paralysis, where only a part is affected.

When the Paralysis is confined to one side of the body, it is termed HEMIPLEGIA, when to the lower half of the body PARAPLEGIA is the name

given. There may also be strictly local paralysis affecting particular muscles or groups of muscles.

Hemiplegia is the form of paralysis most frequently met with, and if only one extremity is affected, it is usually the arm that suffers. The most frequent cause is some serious brain mischief, or a stroke of apoplexy. An Electropathic Belt and Spine Band of good power should be worn constantly, and the application of the Faradic current from the Medical Coil to the affected limbs will generally be required as well. The Electropathic Appliances appear to do good in improving the nutrition of the body, which in Paralytic cases is always much impaired. The opinion of the Electrician of the Association should always be asked before selecting any appliances. Several excellent reports of the good results ensuing from Electropathic treatment have been received by the Association.

Paraplegia, as was said before, is the name given to paralysis of the lower half of the body. It is due to disease of the spinal cord, or some parts of the vertebral column. It occasionally occurs after exposure to great cold, especially if, at the time, the system is very low. Electropathic Appliances might be tried, but each case would require to be treated on its own merits.

Local Paralyses are often due to some poison in the system, such as lead, or it may be the poison of gout, or rheumatism, or syphilis. Electropathic Appliances would have a beneficial effect constitutionally, and the affected parts would probably require as well the application of the Faradic current.

Locomotor Ataxy.—This disease is due to a degeneration of the posterior columns of the spinal cord, and shows itself in a want of power of co-ordinating muscular movements ; it has been said to be due chiefly to exposure to damp and cold. Some authorities consider that sexual excesses are an exciting cause. Powerful Electropathic Appliances would require to be worn, and their use may be confidently expected to alleviate very considerably the symptoms.

Chorea, or St. Vitus's Dance, affects chiefly children, more particularly females, and its symptoms are very marked. The causes are obscure. Several cases that have been treated by the electropathic method have been completely cured. An opinion should always be asked as to what appliances are suitable for any particular case.

Epilepsy, or Falling Sickness.—Many remedies have been tried for this most distressing affliction ; amongst others Electricity, applied in various ways.

The electropathic method has afforded great relief in a number of cases, the intervals between the fits having been considerably lengthened, and the fits themselves diminished in severity, whilst wearing Electropathic Appliances. A Battery Belt should be worn together with a Spine Band, if not continuously, at any rate, for some hours a day.

Hysteria.—There is no intention of attempting here to define this state. Its symptoms are many and varied, and it may simulate almost any disease. The Electropathic Appliances have been found to be of service in a large proportion of cases. Medicines seem to have no permanent effect, and those suffering should always give electropathy a trial; the power that the constant current possesses of improving the general health, and so strengthening the whole nervous system, points it out as a suitable remedy. The mere fact of wearing Electric Appliances and assuring the sufferer that they will remove pain is calculated to have a beneficial effect.

Neuralgia.—How devoutly do those who suffer the torturing pain of this affliction pray that some universal specific may be found. Perhaps more quack remedies have been offered to the public as sure and certain cures than in any other complaint. It may be defined as pain experienced along the

course of a nerve. Certain forms have received particular names. SCIATICA, or pain in the course of the sciatic nerve; INTERCOSTAL NEURALGIA, or pain along the intercostal nerves; TIC DOULOREUX, or neuralgia of the facial nerve.

Sciatica.—This is one of the commonest and most troublesome forms of neuralgia. It is very frequently associated with a gouty or rheumatic tendency; the pain is usually severe, extending from the middle of the buttock, down the back of the thigh and leg, sometimes into the foot. A great number of favourable reports have been received from those suffering who have given electropathy a trial. Appliances should be selected with an eye to their constitutional as well as local effect. An Electropathic Belt and Spine Band of good power is required, or the use of the Battery Belt, and the constant wearing of an appliance covering the thigh.

Tic Douloreux, or Facial Neuralgia, occurs under two forms—slight attacks, that are caused very frequently by decayed teeth, exposure to cold, indigestion or malaria; and a far more severe form, that to which the name of Epileptiform Neuralgia has been given, which is probably due to some diseased condition of the brain at or about the origin of the fifth pair of nerves. In treating the

milder form, it is necessary to consider the cause that has given rise to it. The teeth should be carefully examined. If the digestion is at fault, an Electropathic Belt would be of service, together with the local application of the continuous or galvanic current.

Epileptiform Neuralgia is a very unsatisfactory disease to attempt to relieve. No appliances would be likely to have very much effect. Properly directed applications of the galvanic and Faradic current from a battery are worth a trial.

Intercostal Neuralgia occurs more frequently amongst women, the use of a Spine Band, and a Galvanic pad for local application is recommended.

Gastralgia is the name given to neuralgic pains ocurring in the stomach. *Ovaralgia*, to that affecting the ovary. *Pulmonary neuralgia* to that of the lungs. The great Dr. Laennec spoke very highly of the effects obtained by magnetisation in Pulmonary Neuralgia.

Sufferers from neuralgia are generally in a weak condition, they are altogether below par, and their nutrition is impaired. The Electropathic like any other form of treatment should be directed with a view to improving the general health.

Cephalagia, or Headache is rather a symptom

of disease than a disease itself, it is due often to constipation and sluggish liver, it troubles greatly young women whose menses are deficient in quantity and irregular; those who are debilitated from any cause generally complain of headache. Advice should always be asked as to what appliances would be likely to give relief, as from what has been said, it will be seen that to remove the trouble the cause must be sought. The Electropathic appliances would, in any case, act beneficially by improving the general health.

Nervous Exhaustion may very fairly be considered a disease by itself, though there is no organic mischief existant. The sensations complained of are doubtless very real. There appears to be a want of nervous force, those suffering in this way being generally men whose brain power has been overtaxed by too close application to work, and undue excitement and worry. There is a disinclination for mental labour, and what is worse an inability to perform it; the appetite and digestion may be fairly good, but the mental faculties seem dimmed and clouded. Rest very often is of considerable service; medicines seem powerless; as might be expected Electricity is a valuable restorative. The Association have received some very remarkable letters from men in good positions, detail-

ing the rapid improvement they found take place when wearing Electropathic appliances. A Belt and Spine Band of good power is generally required.

SECTION VI.

DISEASES OF WOMEN.

The diseases incidental to the female sex that can be successfully treated by the use of Electropathic appliances, are Amenorrhea and Dysmenorrhea.

Amenorrhea.—The absence or deficiency of the menstrual flow. An Electropathic Belt will in a very large proportion of cases completely remedy this condition. A Belt with a fair number of Galvanic Discs attached will be required, and occasionally the use of the Battery Belt is needed.

Dysmenorrhea, or painful menstruation, when not due to any mechanical cause the Electropathic appliances afford very marked relief, but advice should always be sought before selecting any appliances. The various uterine displacements together with other morbid conditions of the uterus, that it is not necessary to speak of here, can often be cured, or at any rate sensibly relieved by properly directed electrisation.

SECTION VII.

MISCELLANEOUS DISEASES.

Writer's Cramp.

Authorities differ as to the causation of this disease, some holding the opinion that the mischief is confined to the affected muscles; others that there is some irritation in the upper part of the spinal cord; it is not limited to those who use a pen; pianists, artists, seamstresses may be affected; one and all present the same symptoms, viz., an uncontrollable spasm when attempting to use a particular group of muscles. Rest and tonic treatment is indicated. The Association have several testimonials from those who have been completely cured by wearing their appliances, and as "writer's cramp" generally affects those who can ill afford to throw away either time or money, they are gratified to find Electropathy of value in a disease that is admitted difficult to treat with any measure of success. A Belt and generally a Spine Band should be worn for its constitutional effects, whilst the affected muscles are submitted daily to Faradisation.

Diabetes.

This is essentially a nervous disease, and is now known to be due to pathological changes

in the matter of the brain and spinal cord. The treatment consists chiefly of attention to diet, all starchy and saccharine matter being, as far as possible, eliminated from the food. Electropathic appliances might be of service by tending to improve nutrition ; at any rate, they could do no harm.

Bright's Disease.

The Electropathic Belt is of service in the various forms of this disease, as it tends to improve the nutrition of the kidney, and, at the same time, it most certainly relieves pain. Several letters speaking favourably of the results that have attended the use of the appliances have been received by the Association. A powerful Electropathic or, what is better still, the Battery Belt, should be worn.

Loss of Sexual Power.

This is a subject, which, though an important one, is not intended to be spoken of at length here. Sufferers from this affection may be divided into two classes. First — Nervous, highly susceptible young men who have indulged in malpractices in early youth. Secondly—Men in the prime of life who have "lived fast"; who have resided long in tropical climates; those who have suffered from malarial fevers or who have been subjected to some great mental strain. The

ailments of the first class are generally more imaginary than real; they readily fall a prey to the pestiferous quacks who live on the morbid and unfounded fears their writings, filthy as they are mendacious, excite in the minds of the timorous. All that these *malades imaginaires* stand in need of, as a rule, is a little sensible and kindly advice. Any unhealthy physical condition can, when it exists, be speedily removed by suitable treatment. Very different is the condition of those who are of the second class. Impotent from causes enumerated above, loss of power is not in their case an imaginary, but a real disease. Without going further into particulars, it may be said, without exaggeration, that the ELECTROPATHIC treatment is absolutely certain, properly directed, to effect a cure.

Loss of Voice.

This is frequently due to hysteria, occasionally to some irritation, inflammatory or otherwise, of the larynx. Very good results have been obtained in many cases by the wearing of a Galvanic Necklet.

Sore Nipples.

Many women suffer greatly during lactation from cracked nipples; the wearing of a Galvanic Nipple

Shield will not only speedily effect a cure, but act as a preventive.

Chronic Ulcers

of long standing that have obstinately resisted all forms of treatment, often rapidly heal if a faradic current be passed through them daily, or if a zinc and copper disc connected by copper wire be placed over them.

It would be beyond the scope of this little work to attempt to give any account of electricity as a remedy in diseases of the ear and the eye, or its uses in surgery and midwifery. Only brief mention has been made of those diseases that can find some measure of relief, if not of cure, by wearing an article that produces an electric current. Enough will have been said to show that the Electropathic Appliances cover a wide field as remedial and curative agents.

WELLCOME LIBRARY INSTITUTE